

REMARKS

Claims 12 and 14 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kubota et al. (English translation of JP 64-79919). Claim 14 of the present invention has been cancelled without prejudice, rendering the rejection thereto now moot. The subject matter of claim 14 has been incorporated into independent claim 12, and Applicant therefore respectfully traverses the rejection of this claim because the cited reference does not disclose (or suggest) that a magnetic layer is laminated with the sputtering method when the bias voltage is set to zero volts, as in claim 12 of the present invention, as amended.

Applicant is at a loss to understand the Examiner's rejection of claim 14 under Section 102, given that the Examiner acknowledges on page 3 of Paper No. 02172004 that Kubota does not even describe an application of a bias voltage in relation to the sputtering method. A rejection under Section 102 requires the Examiner to find and cite to where each and every feature and limitation of the present invention is taught within the single prior art reference. The Examiner, however, in this case acknowledges that Kubota does not teach all of the features claimed in claim 12 of the present invention. Accordingly, for at least these reasons, the section 102 rejection of claim 12 is deficient on its face, and should be withdrawn.

Furthermore, the Examiner even acknowledges that Kubota teaches away from the present invention, in that the application of a bias voltage would be precluded by Kubota's disclosed structure. Assuming that this assertion by the Examiner is correct,

Kubota still could not read upon amended claim 12 of the present invention, which requires a bias voltage for the method of manufacturing the recording medium of the present invention.

For at least these additional reasons therefore, the Section 102 rejection of amended claim 12 should also be withdrawn.

Additionally, there is no teaching or suggestion within Kubota that the use of a non-conductive substrate by itself will necessarily result in a zero bias voltage, which appears to be the implication being made by the Examiner. The Examiner, however, has provided no evidence, or support from the reference itself, that a bias voltage may only be applied to a substrate. For example, Fig. 10 of the present invention illustrates one configuration for using the sputtering method, where the bias voltage is shown to be supplied to a susceptor 24 that supports the medium 1, and not to the medium itself, which would necessarily include the substrate of the medium. According to this one example, the present invention is capable of avoiding heat processing of the substrate with the supply of a zero bias voltage. Given that the Examiner admits that Kubota teaches nothing about the sputtering method or a zero bias voltage, nor does Kubota teach the application of a zero bias voltage to a member holding the medium substrate, the Section 102 rejection is therefore further deficient, and should be withdrawn.

Claims 2, 10, and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota. Applicant respectfully traverses this rejection because the cited

reference does not disclose or suggest to include less than 5at% Cr in a magnetic layer consisting of a CoCr-based alloy, as in claim 2 of the present invention, as last amended.

The Examiner acknowledges, on page 4 of the outstanding Office Action, that Kubota is silent with respect to an amount of Cr present in the magnetic layer. The Examiner asserts, however, that an optimal amount of non-magnetic Cr could be discovered by routine experimentation by one of ordinary skill in the art, to “achieve optimal coercivity.” This assertion is erroneous for several reasons. First, claim 2 of the present invention does not recite that the Cr in the magnetic layer must be “non-magnetic.” Second, Kubota neither teaches nor suggests that the concentration of Cr in a CoCr-based alloy will have any affect on the coercive force by itself. Lastly, the other prior art references cited by the Examiner as relevant to present invention, but no longer cited in a rejection against the present invention, all teach significantly higher concentrations of Cr in the magnetic layer.

The Examiner predicates her assertion that the amount of Cr in the present invention may be discovered by routine experimentation upon a misinterpretation of the Kubota reference that the amount of Cr in the magnetic layer may somehow improve the coercive force of Kubota’s medium. In actuality, Kubota teaches nothing of the sort. Kubota specifically teaches that the coercive force becomes improved “as a result of the size reduction of each magnetic zone” in the crystal grain boundaries, and as “a result of the [thermal] treatment.” (See last paragraph beginning on page 5 of the English translation). Kubota specifically teaches that the size reduction of the magnetic zones occur by defusing

the undercoat layer metals (assume a Cr underlayer for purposes of this discussion) within the ferromagnetic layer by means of the thermal treatment. In other words, Kubota teaches that the coercive force becomes improved as a result of greater diffusion of the *underlayer*, and not as a result of the concentration of Cr, for example; in the magnetic layer. In fact, Kubota does not even teach that Cr could or should be used in the ferromagnetic layer. Kubota only teaches that the ferromagnetic layer consists principally of Co. (See page 5).

The Section 103 rejection of claim 2 of the present invention is therefore deficient on its face, in that the Examiner has presented no objective evidence from Kubota, or from common knowledge in the art, that the percentage of Cr in the magnetic layer is a factor that would influence the improved coercivity effect described by Kubota. From Kubota's own teachings, the percentage of Cr in the ferromagnetic layer would be irrelevant to such a result, in that any quantity of Cr in the CoCr alloy would *also* be necessarily reduced by diffusion of the non-magnetic underlayer within the CoCr magnetic layer. The Examiner has in no way established how greater or lesser amounts of Cr will increase or decrease the size of magnetic zones in the magnetic layer. Accordingly, for at least these reasons, the Section 103 rejection of claim 2 is deficient on its face, and should be withdrawn.

Furthermore, many of the previous references, cited by the Examiner as relevant to the present invention, teach Cr concentrations in a magnetic layer at levels significantly higher than 5%. Therefore, the Examiner's own citation to the relevant art also

teaches away from the incentive to experiment with concentrations of Cr lower than 5%, as featured in the present invention. The Murata reference (JP 05-101933) in particular illustrates, in Fig. 3, that coercive force improves as the concentration of Cr is increased greater than 5%. It is therefore a burden on the Examiner to demonstrate how concentrations of Cr less than 5% could be obvious when the Examiner's own relevant art teaches the opposite, and therefore teaches away from the present invention. The Examiner has not met this burden, and the Kubota reference provides no other support for the Examiner's interpretation. Accordingly, for at least these still further reasons, the Section 103 rejection of claim 2 based on Kubota is respectfully traversed, and should be withdrawn.

Claims 10 and 15 depend from independent claim 2, and therefore include all of the features of the base claim, plus additional features. Applicant therefore respectfully traverses the Section 103 rejection of claims 10 and 15 for at least the reasons discussed above in traversing the rejection of independent claim 2.

Because the only amendment to the claims provided herein is the cancellation of claim 14, and its subsequent incorporation into its base claim 12, Applicant submits that entry of this Amendment is appropriate even after final rejection, and that no new issues have been raised by this Amendment requiring further search or consideration by the Examiner. Nevertheless, in the event that the Examiner may find that other issues related to patentability may still exist, a Request for Continued Examination ("RCE") is being filed concurrently

herewith, with all appropriate fees, to prevent the present Application from going abandoned while such other, unrelated issues are addressed.

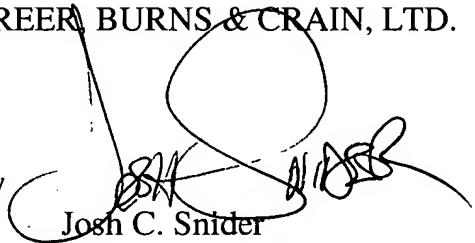
Applicant further submits, however, that this Amendment is a complete response to the outstanding Office Action, one which entirely overcomes the outstanding rejections of record, and therefore the RCE should not be necessary for the Examiner to place this Application in condition for allowance, and all relevant fees should then be refunded to Applicant.

For all of the foregoing reasons, Applicant submits that this Application, including claims 2, 10, 12, and 15, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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